

# EXHIBIT A

**REPORT OF PETER A. MORRISON, PH.D.**

*In Vaughan v. Lewisville Independent School District et al.*

September 17, 2019

1. I have been retained as an expert in the case of *Vaughan v. Lewisville Independent School District et al.* by Attorney Meredith Prykryl Walker with the firm of Walsh Gallegos. I have been asked to evaluate the August 21, 2019 *Expert Report of David Ely* (Plaintiff's expert).

2. The specific focus of my evaluation is Plaintiff's claim that "[t]he African American, Hispanic, and Asian communities in LISD are sufficiently large, geographically compact, and constitute a politically unified group that votes cohesively as a bloc, such that one or more properly-apportioned single-member electoral districts can be drawn in which minorities would constitute a majority of eligible voters." (Complaint at paragraph 60).

3. Plaintiff's claim is based upon Mr. Ely's findings about the *minority citizen voting age population* as he has defined that population. This population is the combined Hispanic, Black, and Asian citizen voting-age population ("CVAP") of the Lewisville Independent School District ("LISD").

4. My evaluation relies on the following sources: (1) official demographic data from the US Census Bureau; (2) Plaintiff's *Complaint* and Mr. Ely's *Expert Report*, especially Appendix B; (3) GIS shape files and demographic data that Plaintiffs have provided, which Mr. Ely purportedly has used and/or relied upon; and (4) US Census Bureau technical documentation pertaining to the American Community Survey.

5. I am an applied demographer and am retired from The RAND Corporation, where I was Senior Demographer and the founding director of RAND's Population Research Center. I have served on the U.S. Census Bureau Advisory Committee on Population Statistics, 1989-1995, and as an invited participant on the Bureau's Working Group on 2010 Race and Ethnicity. I have been elected as President of the Southern Demographic Association and to the Board of Directors of the Population Association of America, which are the two leading associations of professional demographers. I have taught students at the University of Pennsylvania, the RAND Graduate School, and the University of Helsinki. I am being compensated at a rate of \$250/hour for my work in reviewing materials and preparing this report. I will be compensated at a rate of \$400/hour for any testimony I give in court or by deposition.

6. Attached Appendix A lists all cases in which I have testified by declaration, deposition, or at trial since August 2012. Attached Appendix B summarizes my academic background, including all publications in the last ten years.

7. All conclusions contained within my following Report are to the reasonable degree of scientific certainty (at least 90% certain) that scholars and experts in my field use.

## **I. SUMMARY OF FINDINGS AND CONCLUSIONS**

In this report, I offer my critical evaluation of Mr. Ely's methodology, findings, and conclusions drawn from those findings. My central findings and conclusions are:

1. Mr. Ely relies upon a hybrid methodology that is flawed in two distinct ways. First, he cannot surely distinguish Asian from non-Asian registered voters. Second, his estimates of citizenship status are inconsistent and therefore unreliable.

2. Mr. Ely's source data appears to be tainted by inconsistencies, which arise because he fails to use the Census Bureau's demographic "best practice" method (iterative proportional fitting). In spot-checking his source data, I discovered troubling inconsistencies that cast doubt on the validity of his entire data set and the basis for his claim to have satisfied the first *Gingles* precondition.

3. In my opinion, Mr. Ely cannot claim to have satisfied the first *Gingles* precondition, given the demonstrably flawed hybrid methodology he has used to estimate the minority citizen voting-age population of an illustrative district.

4. Professor Mayer's reliance of Mr. Ely's data would necessarily cast doubt on the reliability of Mayer's own conclusions, insofar as those conclusions derive from Mr. Ely's data.

## **II. OVERVIEW OF MR. ELY'S METHODOLOGY**

Mr. Ely's Expert Report dated August 21, 2019 centers on determining "whether the demographics in LISD in Texas, allow one to draw majority-minority districts in which citizens of voting age population in predominately minority communities would have an opportunity to elect representatives of their choice." [Ely Report, para. 2]. What follows is my understanding of how Mr. Ely proceeded to draw his "illustrative district":

1. He tried to identify Spanish and Asian surnamed voters from a single list of *current* registered voters within LISD. This list included each voter's prior voting history in the 2014, 2015, 2016, and 2018 LISD Board elections, and in other elections in 2008, 2012 and 2018.

2. He geocoded these currently registered LISD voters by address, to match the changing precinct geography used in prior elections. That is, he coded each current registrant according to the numbered precinct in which that voter would have resided as of 2018, 2016, 2015, ...etc. assuming that the voter had resided continuously at that same residence over the past years.

3. He distinguished which of these currently registered LISD voters are Latino or Asian based upon the registrant's surname. For each year above, he recorded the counts of all voters, the voters with Spanish surnames (as shown on the US Census Bureau's List of Spanish Surnames<sup>1</sup>) and the voters with Asian surnames (as shown on the Lauderdale-Kestenbaum Lists

---

<sup>1</sup> The Census Bureau's List of Spanish Surnames (US Census Bureau, 1980) identifies persons of *probable* Hispanic origin. The List is unique in that it has undergone thorough scientific evaluation. Thus, its detection characteristics are well understood, and its limitations have been carefully documented. See: US Census Bureau. Census of Population

of Asian Surnames<sup>2</sup>).

4. He tabulated these counts of voters (“Total,” “Spanish,” and “Asian”) by precinct and matched these three voter counts with the corresponding election returns by precinct. He did this all for each election in (1) immediately above.

5. He assembled the 2017 5-year American Community Survey (ACS) published estimates of the citizen voting-age population (CVAP) for geographic units called *census block groups* (geographic units composed of two or more census blocks). These block group estimates furnish the CVAP for individual block groups: for the total CVAP (“Total”) and separately by race and ethnicity (for the “Hispanic,” the “White nonHispanic,” the “Black nonHispanic,” the “Asian nonHispanic,” and the residual “all other” category).

6. From these block group estimates, he then derived census *block-level* estimates of the total CVAP population and the separate race-ethnicity categories listed in (5) above. He relied only upon the Black nonHispanic CVAP block-level estimates, since there is no reliable list of surnames specific to the Black population.

7. He reaggregated his unpublished census *block-level* estimates to form an illustrative single-member Trustee district, drawn so as to encompass one-seventh of the total population of the LISD. His demographic profile of the racial-ethnic composition of this illustrative district (shown in his Table 1 at para. 27) is based upon his reaggregation of these unpublished census block-level estimates.

8. Among persons who actually voted in a given election, Latinos were estimated as voters with Spanish surnames; Asians were estimated as voters with Asian surnames. Among the 2017 CVAP (i.e., persons eligible to vote, not actual voters), Mr. Ely calculated the percentage of CVAP who were Black and used that number as his estimate of the number of Black voters in that election.

9. Mr. Ely provided his resulting estimates of actual voters (“Total” and for each separate race-ethnic group) by precinct to Professor Kenneth Mayer (see Ely Report, para. 17). Thus, the reliability of Professor Mayer’s analyses and conclusions hinge directly upon the reliability of Mr. Ely’s hybrid technique of estimating the racial-ethnic composition of the actual voters in each precinct for each election Professor Mayer analyzed.

### **III. EVALUATION OF MR. ELY’S METHODOLOGY**

Mr. Ely’s methodology is flawed in two distinct ways. First, he cannot surely distinguish Asian from non-Asian registered voters. Second, his estimates of citizenship status are profoundly flawed. For both these reasons, I regard Mr. Ely’s results as flawed. I further caution that Professor

---

and Housing, 1980. *Spanish Surname List Technical Documentation*, prepared by Data Access and User Staff, Data User Services Division.

<sup>2</sup> The Lauderdale-Kestenbaum Asian Surname lists are detailed in their publication, reproduced in Appendix B of Mr. Ely’s Expert Report.

Mayer's estimates based upon Mr. Ely's data are unreliable.

**Ely Cannot Surely Distinguish Asian from Non-Asian Voters**

Mr. Ely states that "A Spanish or Asian surname is a commonly-used proxy for ethnicity in determining the ethnic composition of a group of people identified by name when ethnic self-identification is not practical. I have used this type of analysis extensively to build databases to analyze voting behavior and measure potential voting strength in districts, and as a foundation for expert reports in voting-rights litigation." [Ely Expert Report, paragraph 14.]

He goes on to explain his use of the Lauderdale-Kestenbaum Asian surname list which is detailed in his Appendix B, stating:

"16. An Asian Surname list was developed [by Lauderdale & Kestenbaum] . . . for use in public health research. . . . The list includes Chinese, Korean, Japanese, Vietnamese, Asian Indian, and Filipino Surnames. I have used this list extensively in my work in numerous jurisdictions.

17. Precinct geography was overlaid on census geography to produce estimates of CVAP composition for each precinct. Each registered voter was coded to indicate if the voter had a Spanish or Asian surname as described above. For voters with non-Spanish and non-Asian surnames, the CVAP data was used to estimate the probability that the voter was Black or African American.

18. For each of the registered voters who are recorded to have voted in each election this information was then aggregated to the precinct level in order to produce a count for each precinct in each election of total voters, Spanish surnamed voters, Asian surnamed voters, and estimated Black voters.

19. In order to produce a data file for election analysis I combined precinct counts of voters in the 2014, 15, 16, and 18 Joint Elections, the 2008, 2012, and 2018 Democratic Primaries, and the 2008 and 2012 General Election with precinct by precinct election results for each election downloaded from the Denton County Elections Website (<https://www.votedenton.com/election-results/#PastElections>) or the Texas Legislative Council website (<ftp://ftpgis1.tlc.state.tx.us/elections/>).

17. The results of this analysis were provided to Professor Kenneth Mayer, voting behavior expert, for further analysis."

**Ely Ignores Important Limitations in Equating Asian Voters with Asian-surnamed Voters**

The first troubling issue here is that Lauderdale & Kestenbaum developed four distinct and separate Asian surname **lists**, suited to different applications. Mr. Ely did not specify which of these lists he used. Only two of these four lists are suited to his purposes: the *predictive* and the *strongly predictive* lists which are not conditional on race.

For the predictive list, a surname was included on that list if at least 50% of persons with that surname were associated with an Asian origin. A subset of names from this predictive list was further identified as “strongly predictive” if at least 75% of persons with that surname were associated with an Asian origin. These two lists, as Lauderdale & Kestenbaum explain, are suited to different applications, dictated by the importance of accuracy (e.g., being surer a person is Asian versus detecting a higher proportion of Asians among all persons in the population).

Using the longer *predictive* list of Asian surnames would flag a larger number of voters as “Asian” than would use of the shorter *strongly predictive* list of Asian surnames. However, that larger number flagged “Asian” (on the longer list) necessarily includes voters for whom one can justify being only 50% to 75% certain that each one actually *is* Asian. Using the shorter *strongly predictive* list flags fewer registered voters as “Asian”—but one can justify being at least 75% certain that each one of them actually is Asian.

Nowhere does Mr. Ely specify which of these two lists he used. Did he equate “Asian” with membership on one or the other list?

It appears that he overlooked a critical limitation here: the inherent limits on anyone’s certainty in classifying a voter as Asian (either “50%-75% certain” or “at least 75% certain”).

The second troubling issue stems from Lauderdale & Kestenbaum’s further cautionary statements that bear directly on the confidence one can place on Mr. Ely’s actual numerical counts of Asian voters in the LISD.

Lauderdale & Kestenbaum caution first that many frequently-occurring Asian surnames either are not unique to a single Asian ethnic group or are not uniquely Asian. Second, many of LISD’s Asian residents are of Asian Indian descent. The authors specifically caution that Asian Indians have the lowest positive predictive value (PPV) of all Asian nationalities in their study. (PPV is the proportion of persons whose names appear on the list who were born in the corresponding country and is a measure of accuracy.)

Lauderdale & Kestenbaum (at p. 294) further warn against identifying an aggregate group of Asian Americans without adjusting for differences in the sensitivity among individual ethnic categories (China, India, Japan, Korea, Philippines, and Vietnam). Mr. Ely has failed to make these necessary adjustments for differences in sensitivity.

In short, Mr. Ely’s statement (at para. 18) that his method has produced “a count for each precinct in each election of . . . Asian surnamed voters” definitely should not be read as a reliable count of *Asian voters*. In my opinion, they are no more than educated guesses, ranging as low as 75% certain or even 50% certain. With predictive accuracy in these ranges (i.e., “50%-75%” or “at least 75%”), any precinct count of Asian voters could be substantially lower than the count he furnished to Professor Mayer. Mr. Ely’s failure to adjust for the presence of so many Asian Indians among LISD’s Asian residents is a further basis for disregarding these surname-based estimates. His estimates are inferior to those furnished by the American Community Survey CVAP data (which Mr. Ely did use, but only for estimating the count of Black voters). His hybrid approach has not been validated, and there are substantial grounds for questioning its accuracy.

### **Ely's Estimates Used to Form His Demonstrative District Are Inconsistent**

Using block-group data from the Census Bureau's American Community Survey can be problematic. The numerical values for each *census block* are not published by the Census Bureau; those values must be derived from the Bureau's published block group data.<sup>3</sup> While there is no one "right" way of deriving these estimates, there are several wrong ways of doing so. A common hallmark of the latter is the appearance of obvious inconsistencies among the values for individual census blocks. Such inconsistencies are apparent in the census block estimates that Mr. Ely has relied upon to form his demonstrative district.

Mr. Ely explains the necessity to create estimates of the African American and Hispanic CVAP at the census block level:

"25. In order to properly analyze the Lewisville ISD and single member district alternatives, it is necessary to use Census Blocks. Although population and VAP data are available at the Census Block level, CVAP data is available only at the BG level. To calculate African American and Hispanic share of CVAP in the various single member districts, it was necessary to create an estimate of CVAP at the Census Block level. For each Census Block, I calculated the block's share of Asian and non-Asian VAP within the corresponding BG. I calculated the block's share of VAP for each ethnic group within the corresponding BG. I then assigned to each Census Block the appropriate share of each ethnic group's CVAP within the corresponding BG."

If one attempts to form a district using individual block data (as Mr. Ely has), one must follow the Census Bureau's demographic "best practice" method to resolve internal inconsistencies. This method is iterative proportional fitting (IPF), also known as "raking."<sup>4</sup> The method matches the total CVAP exactly, fits the distributions of minority CVAPs as closely as possible to the 2010 decennial census actual full count distributions, and ensures that the sum of minorities always adds up exactly to the respective total.

Mr. Ely's source data appear to be tainted by inconsistencies. In spot-checking his source data, I discovered troubling inconsistencies that cast doubt on the validity of his entire data set and

---

<sup>3</sup> A census *block* typically includes from zero to several hundred persons; a census *block group* typically encompasses 1,100 persons in two or more census blocks.

<sup>4</sup> Iterative Proportional Fitting (IPF) fits the Decennial PL94-171 VAP block population distributions (in total and by race/ethnicity) by block group to the CVAP block group populations (in total and by race/ethnicity). The IPF approach has two advantages: (1) It mitigates internal inconsistencies and avoids reliance on several technical assumptions that are questionable; and (2) it is the method that the US Census Bureau already uses to support a wide array of their subnational population estimates by demographic characteristic. For further details, see: US Census Bureau methodology statement at: <https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2010-2018/2018-natstcpr-meth.pdf>; and footnote 29 in: Supreme Court of the United States, "Brief of Demographers Peter A. Morrison, Thomas M. Bryan, William A. V. Clark, Jacob S. Siegel, David A. Swanson, and The Pacific Research Institute as *Amici Curiae* in Support of Appellants," in *Evenwel et al. v. Abbott et al.* <http://www.scotusblog.com/wp-content/uploads/2015/08/Demographers-Amicus.pdf>



his claim to have satisfied the first *Gingles* precondition.<sup>5</sup> I am still analyzing instances of apparent inconsistencies (shown in Table 1) which I have isolated in his census block data furnished to me in Plaintiffs' file "VAUGHAN\_001313". The frequency and magnitudes of these apparent inconsistencies in Ely's data raise a red flag for any analyst.

### **Table 1 Details**

The left-hand column in Table 1 is the unique GEOID identification number for a census block group (BG).

The second column is the actual 2010 decennial census count of the voting-age population of a specific census block within that BG.

The third column is Mr. Ely's estimate of the citizen voting-age population of that specific census block, which he derived from the 2017 American Community Survey 5-year published BG estimates.

The fourth column is Mr. Ely's estimate of the citizen voting-age population of the specific block who are Black, show as a percentage of the total CVAP estimate for that BG.

The right-hand column is actual 2010 decennial census count of the voting-age population of that block who are Black, show as a percentage of the actual total VAP count for that block.

See *Technical Appendix* immediately following Table 1 below for further details.

[THIS PORTION INTENTIONALLY LEFT BLANK]

---

<sup>5</sup> This dataset is the file labelled "VAUGHAN\_001313 (in 001 of NATIVE) downloaded 09-10-19.xlsx".



Table 1

Census Block Group ID #	Total voting age pop. (2010)	Total citizen VAP (2013-17)	% Black (2013-17 CVAP)	% Black (2010 VAP)
481210217341	988	1035	40%	15%
481210217361	562	567	37%	14%
481210217361	534	534	37%	13%
481210216292	247	528	44%	15%
481210217361	478	485	35%	13%
481210217152	225	280	<b>53%</b>	<b>25%</b>
481210217481	200	275	30%	6%
481210217161	258	228	<b>55%</b>	<b>34%</b>
481210215162	170	227	40%	13%
481210216292	117	215	37%	11%
481210216181	210	182	35%	14%
481210215162	110	139	33%	10%
481210215212	103	131	34%	12%
481210215162	97	125	36%	11%
481210215212	74	119	<b>54%</b>	<b>23%</b>
481210215162	92	116	35%	11%
481210215162	80	106	43%	14%
481210215162	66	101	49%	18%
481210215212	81	101	30%	10%
481210217311	76	97	<b>50%</b>	<b>21%</b>
481210216312	83	96	42%	16%
481210217212	61	96	33%	8%
481210216301	110	91	<b>36%</b>	<b>53%</b>
481210216212	77	90	43%	18%
481210217292	60	69	30%	10%
481210215163	51	66	35%	14%
481210215212	35	65	64%	31%
481210217282	65	62	25%	3%
481210215163	44	61	38%	16%
481210217311	46	61	50%	22%
481210216312	56	60	36%	13%
481210216181	42	60	89%	60%
481210215202	52	59	50%	23%
481210217152	58	59	40%	16%
481210215212	46	58	32%	11%
481210216301	72	58	42%	58%
481210216181	38	55	88%	61%
481210217454	81	55	33%	1%
481210215163	50	54	31%	10%
481210217212	29	51	37%	10%
481210217481	36	50	30%	6%
481210217311	29	49	68%	38%
481210217481	19	44	52%	16%
481210217152	36	42	51%	22%
481210217152	31	41	58%	29%
481210218003	17	40	84%	41%

Source: Ely's census block data estimates (from Pls' file "VAUGHAN\_001313").

## **TECHNICAL APPENDIX**

**FIPS (Federal Information Processing Standard) codes** uniquely identify every piece of census geography using a hierarchical numerical identification system. The first two digits of a FIPS code uniquely identifies the state (in whole or in part). For example, Alabama’s FIPS code is 01, Alaska is 02, etc. The next three digits of a FIPS code uniquely identifies a county within a state – for example 001, 003 and so forth. All states have duplicate county (and tract, block group and block) FIPS codes, so it is the combination of both the state and county FIPS code that creates a unique identifier for each county (and tract, block group and block).

### **Illustration: How a “Summary Level” and a “FIPS code” work together**

- Texas (like every state) has a Summary Level (“040”) and state FIPS code (“48”).
- Denton County (like every county) has a Summary Level (“050”) and is uniquely identified by the combination of Texas’s (48) FIPS code and Denton County’s (121) FIPS code; together, this pair of codes designates Denton’s unique identifier: FIPS code 48121.
- A Census Tract has a Summary Level (“140”) and is uniquely identified by the next six FIPS code digits. For example, Census Tract 0217.34 in Denton County is uniquely identified as FIPS 48121021734 – for a FIPS code string of 11 characters.
- Within a Census Tract are Block Groups. A block group has a Summary Level (“150”) and is uniquely identified by the next (12<sup>th</sup>) FIPS code digit. For example, Block Group 1 in Census Tract 0217.34 in Denton County is uniquely identified as 481210217341. The population of a block group ranges from 600 to 3,000 people. Two noteworthy points here are: (1) the residents of a block group (BG) may not be distributed evenly across the individual blocks of that BG and (2) whatever that distribution **was** (as of the 2010 census) may no longer match what it is **today**.
- Within a Block Group are Census Blocks, the smallest statistical geographic unit delineated by the Census Bureau. A census block has a Summary Level (“101”) and is uniquely identified by the next four digits: the block group code (in the 12<sup>th</sup> position) followed by three more digits: 481210217341001 – for a total of 15 characters, which designates a single census block FIPS code. The population of individual census blocks varies greatly and may change dramatically within a few years (consider a block with a new apartment complex where a few single-family homes once stood in 2010).

Individual census blocks are the most granular geography for which PL94-171 data are available. Most local redistricting involves assembling contiguous aggregates of census blocks, block groups and tracts. Assembling these distinct units of census geography can be unwieldy and must be done with care and attentive quality control. Blocks nest within block groups, block groups nest within tracts, tracts nest within counties, and counties nest within states.

A handwritten signature in black ink, appearing to read "Peter A. Morrison". The signature is fluid and cursive, with a large initial "P" and "M".

---

Peter A. Morrison

September 17, 2019

**APPENDIX A**

**Peter A. Morrison, Ph. D.**

**CASES IN WHICH I HAVE TESTIFIED AT TRIAL OR BY DEPOSITION SINCE  
AUGUST 2012**

1. ZORAIDA RIOS-ANDINO et al. v. ORANGE COUNTY. UNITED STATES DISTRICT COURT, MIDDLE DISTRICT OF FLORIDA, ORLANDO DIVISION. Expert Report on behalf of Defendant.
2. JAMES FIGGS AND ROBERT JACKSON v. QUITMAN COUNTY, MS. UNITED STATES DISTRICT COURT, NORTHERN DISTRICT OF MISSISSIPPI, GREENVILLE DIVISION. Affidavit in Support of Defendants' Motion for Summary Judgment.
3. Montes and Arteaga v. City of Yakima, WA. U.S. District Court, Eastern District of Washington. Deposition and trial testimony on behalf of Defendant.
4. U.S. v. TOWNHOMES OF KINGS LAKE, HOA, INC. et al. MIDDLE DISTRICT OF FLORIDA. DJ# 175-17M-499. Declaration on behalf of Plaintiff U.S. Department of Justice.
5. EVENWEL v. PERRY, U.S. DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS. Declaration on behalf of Plaintiffs seeking to enjoin Texas from conducting further state Senate elections under Plan S172 and asking the court to require the Texas Legislature to reapportion state senatorial voting districts in conformity with the Fourteenth Amendment.
6. EVENWEL et al. v. ABBOTT et al., UNITED STATES SUPREME COURT. "Brief of Demographers Peter A. Morrison, et al. as *Amici Curiae* in Support of Appellants," in Evenwel et al. v. Abbott et al.
7. PAULETTE KREMMEL v. FAIRLIFE LLC, UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF ILLINOIS. Declaration on behalf of Defendant.
8. DR. PANKAJ JAIN, Plaintiff v. COPPELL INDEPENDENT SCHOOL DISTRICT, et al., U.S. District Court, Northern District of Texas, Dallas Division. Declaration on behalf of Defendant.
9. Glatt v. City of Pasco, et al., U.S. District Court, Eastern District of Washington. Declaration on behalf of Defendant. (Court ruled in favor of Defendant)
10. Bishop, et al. v. Shorter University, Inc., Civil Action No. 4:15-CV-0033-HLM, United States District Court for the Northern District of Georgia, Rome Division. Declaration on behalf of Defendant.
11. Feldman et al. v. Arizona Secretary of State's Office et al., United States District Court, District of Arizona. Declaration on behalf of Defendant.
12. Timothy Dadey et al. v. City of Costa Mesa, Case No. 30-2014-00757962-CU-CR-CJC and Timothy Dadey et al. v. City of Costa Mesa, Case No. 30-2014-00758104, pending in the Superior Court of the State of California for the County of Orange. Deposition testimony.
13. Anne Harding et al. v. County of Dallas, Texas et al. U.S. District Court, Northern District of Texas, Dallas Division. C.A. No. 3: 15-CV-00131-D. Deposition and trial testimony on behalf of Plaintiffs.

14. Pico Neighborhood, et al. v. City of Santa Monica, et al. Superior Court of the State of California for the County of Los Angeles, No. BC616804. Deposition and trial testimony on behalf of Defendant.
15. Joseph Thomas et al. v. Phil Bryant et al., Civil Action No. 3: 18cv 441-CWR-FKB in United States District Court for the Southern District of Mississippi, Northern Division. Deposition and trial testimony on behalf of Defendants.
16. S&R Development Estates, LLC v. Town of Greenburgh et al. in United States District Court, Southern District of New York. Declaration on behalf of Defendant.

(Updated: August 7, 2019)

## **APPENDIX B**

### **PETER A. MORRISON**

#### **CONTACT INFORMATION**

E-MAIL: [PETERMORRISON@ME.COM](mailto:PETERMORRISON@ME.COM)

VOICE: (508) 228-8018; CELL: (310) 266-9580

#### **EDUCATION**

B.A., Sociology, 1962, Dartmouth College

Ph.D., Sociology, 1967, Brown University

#### **PROFESSIONAL EXPERIENCE**

2009-present — President, Peter A. Morrison & Associates, Inc., Nantucket, MA

1969-2009 — Senior Staff Demographer and Resident Consultant, The RAND Corporation, Santa Monica, California

1979-1990 — Founding Director, Population Research Center, RAND

1967-1969 — Assistant Professor, Department of Sociology, and Research Associate, Population Studies Center, University of Pennsylvania, Philadelphia

#### **AREAS OF EXPERTISE**

Dr. Morrison's principal expertise centers on applications of demographic analysis in tracking socioeconomic trends and envisioning their consequences for public policy and business.

Domestic applications include demographic analysis for electoral redistricting; store site selection; human resource analysis; evaluating employment discrimination claims, minority representation within jury pools, and school desegregation remedies; forecasting school enrollments; and using census and administrative data to monitor local community demographic contexts.

International applications include business concerns with corporate strategic planning, globally emerging middle-class consumer markets, and demographic precursors of expanding consumer markets; comparing and evaluating individual markets; and identifying potential business opportunities spurred by forthcoming demographic change.

Dr. Morrison conducts studies for the private sector and offers executive briefings on these topics through his consulting firm, founded in 1984. Clients have included American Express, American Stores, Corning, Inc., Ford Motor Co., Marriott International, NBC, New Directions for News, Times Mirror, University of California, and CIBC Securities (Canada).

Previously, Dr. Morrison was a faculty member at the University of Pennsylvania. He also has taught periodically at UCLA, the RAND Graduate School, and the Helsinki School of Economics. He also lectures before academic and business audiences and gives invited testimony before subcommittees of the U.S. Senate and House of Representatives. He has made invited presentations to the National Science Board, the Conference Board, the National League of Cities, the National Conference of State Legislatures, the University of California Management Institute, the American Bar Association, American Society of Newspaper Editors, newsroom seminars for the Casey Journalism Center, County Counsels Association of California, American College of Surgeons, National Association of Homebuilders, Missouri Legislative Forum, World Future Society, and Volunteers of America.

He has served as advisor to the Committee for Economic Development, the Congressional Research Service, and committees of the National Academy of Sciences, U.S. Census Bureau, Department of Agriculture, National Institutes of Health, California Energy Commission, California Governor's Council on Growth Management, Center for California Studies, and United Way.

## **PROFESSIONAL ORGANIZATIONS/HONORS**

Invited participant, U.S. Census Bureau Working Group on 2010 Race and Ethnicity  
Member, L.A. Unified School District Enrollment Analysis Technical Advisory Committee  
Visiting Lecturer, Helsinki School of Economics and Business Administration, summer 2001  
U.S. Census Bureau Advisory Committee on Population Statistics, 1989-1995 (Chair, 1990).  
Population Association of America: Board of Directors, 1978-1980; Public Affairs Committee, 1979-1986; Chair, Nominations Committee, 1981-1982; annual Program Organizing Committee, 1995, 1998; Local Arrangements Committee, 2000; Committee on Applied Demography, 1995-1999, Chair, 1998; Development Committee, 2006-2012.  
Southern Demographic Association: Board of Directors, 1999-present; Vice President, 2001; President, 2003.  
International Association of Applied Demographers (officer)  
Center for Spatially Integrated Social Science, UC Santa Barbara: Advisory Board, 2000-  
Research Advisory Board, Committee for Economic Development, 1988-1991.  
Regents' Lecturer, UCLA, Spring 1987.  
Social Science Research Council's Committee on the Survey of Income and Program Participation, 1985-1988.  
National Advisory Child Health and Human Development Council, National Institute of Health, 1984-1987.  
Population Research Committee, National Institute of Child Health and Human Development, 1977-1979.  
Committee on Behavioral and Social Aspects of Energy Consumption and Production, National Academy of Sciences, 1980-1982.  
Committee on Urbanization and Population Redistribution, International Union for Scientific Study of Population, Chairman, 1976-1979.  
Advisory Subcommittee for Applied Social and Behavioral Sciences, National Science Foundation, 1978-1981.



Future of Rural America Advisory Committee, FHA, 1978-1981.

Editorial Advisory Committee, *Urban Studies*, 1985-1995.

Editorial Advisory Board, *J. Australian Population Assoc.*, 1995-1998.

## RECENT MEDIA APPEARANCES/COVERAGE:

*Interviews:* CNBC; New York Times; Los Angeles Times; USA Today; Time Magazine; Seattle Times; AMA/Marketing News

*Commentary:* New York Times; Wall Street Journal; Washington Post; International Herald Tribune; Pittsburgh Post-Gazette; Los Angeles Times; Atlanta Constitution; Houston Chronicle; San Jose Mercury News; Providence Journal; San Antonio Express-News

*Articles:* “United Nations of Nantucket,” *N Magazine* (Winter 2016).  
(access at: [www.n-magazine.com/united-nations-nantucket/](http://www.n-magazine.com/united-nations-nantucket/) )

## RECENT PRESENTATIONS:

- 01/24/2019: “**Big Data for a Small Island,**” lunch hour talk at Nantucket Saltmarsh Center  
<https://www.youtube.com/watch?v=ZqqJ9STcMwE>
- 10/13/2016: “A Demographic Accounting Model for Class Action Litigation,” presented at 2016 Southern Demographic Association meetings, Athens, GA. (coauthored with Thomas Bryan).
- 10/22/2015: At Nantucket Historical Association’s “Food for Thought” series:  
“**Immigration on Nantucket: What You Should Know**”  
<https://www.youtube.com/watch?v=u17rINVweZs> (Morrison presentation starts at minute 2:10)
- 01/08/2015: To Waterbury, CT “**Alderman by District Reapportionment Commission**” Meeting  
<https://www.youtube.com/watch?v=aj6qE3JECg0&feature=youtu.be>  
(Morrison presentation start at minute 23:10)
- 01/14/2015: To Waterbury, CT “**Aldermen by District Reapportionment Commission**” meeting:  
[https://www.youtube.com/watch?v=98Vp4y11\\_sc](https://www.youtube.com/watch?v=98Vp4y11_sc) (Morrison presentation starts at minute 9:10)
- 12/2014: “**Investing in Nantucket’s Future**” <http://vp.telvue.com/preview?id=T02542&video=223735>  
(Morrison presentation starts at minute 1:30)
- 11/2013: “**Growing Old: How Aging Populations Will Transform Our Lives and Times**”  
[http://www.youtube.com/watch?v=kJvS\\_hhgLDk&feature=c4-overview-vl&list=PLJgJVmnztYsTqYVn\\_ijBhCGxA5-7DMtGw](http://www.youtube.com/watch?v=kJvS_hhgLDk&feature=c4-overview-vl&list=PLJgJVmnztYsTqYVn_ijBhCGxA5-7DMtGw) (Morrison presentation starts at minute 1:05)

## BOOKS

Morrison, P. A. and T. M. Bryan, *REDISTRICTING: A Manual for Analysts, Practitioners, and Citizens* (Springer, forthcoming 2020).

Morrison, P. A., ed. *A Taste of the Country: A Collection of Calvin Beale's Writings* (Penn State Univ. Press, 1990).

Morrison, P. A., co-ed. *Demographics: A Casebook for Business and Government* (Westview Press, 1994). Access at: [https://www.rand.org/pubs/monograph\\_reports/MR904.html](https://www.rand.org/pubs/monograph_reports/MR904.html)

Morrison, P. A., ed. *Population Movements: Their Forms and Functions in Urbanization and Development* (IUSSP, Ordina Editions, Liege, Belgium, 1983).

Morrison, P. A. *Demographic Information for Cities: A Manual for Estimating and Projecting Local Population Characteristics* (Santa Monica, CA: RAND Corporation, R-618, 1971). Access at: <https://www.rand.org/pubs/reports/R0618.html>

## SELECTED PUBLICATIONS/PAPERS/POLICY BRIEFS/OP-EDs

Most of my publications (or abstracts) are accessible at these sites:

[https://www.researchgate.net/profile/Peter\\_Morrison2/publications?sorting=newest&page=2](https://www.researchgate.net/profile/Peter_Morrison2/publications?sorting=newest&page=2)

[www.rand.org/pubs/authors/m/morrison\\_peter\\_a.html](http://www.rand.org/pubs/authors/m/morrison_peter_a.html)

"Sanctuary Cities Get a Census Bonus," op-ed in *The Wall Street Journal*, July 16, 2019.  
[https://www.wsj.com/articles/sanctuary-cities-get-a-census-bonus-11563318817?fbclid=IwAR3Yqf2TAeqLjsUc\\_hbu3GS1775Zd9iGG3dlqWcMF1DQPv95jsTFBPtdHOY](https://www.wsj.com/articles/sanctuary-cities-get-a-census-bonus-11563318817?fbclid=IwAR3Yqf2TAeqLjsUc_hbu3GS1775Zd9iGG3dlqWcMF1DQPv95jsTFBPtdHOY)

"Small-Area and Business Demography" (coauthor) Chapter 31 in Dudley L. Poston, Jr. (editor). *Handbook of Population*. 2<sup>nd</sup> edition. Cham, Switzerland: Springer Nature.

"A border wall won't stop people from coming here illegally," op-ed in *The Bryan-College Station (TX) Eagle*, March 19, 2019 (co-author). Access at:  
[https://www.theeagle.com/opinion/columnists/a-border-wall-won-t-stop-people-from-coming-here/article\\_5b5e7216-4551-582c-9e82-0f5adf37896d.html](https://www.theeagle.com/opinion/columnists/a-border-wall-won-t-stop-people-from-coming-here/article_5b5e7216-4551-582c-9e82-0f5adf37896d.html)

"Demographic Approaches to Unveiling a Partisan Gerrymander," presented at the 2019 Population and Public Policy Conference, Albuquerque, NM.

"Estimating Nantucket's Effective Population," under review by *Population Research & Policy Review* (coauthor).

"Small-Area and Business Demography," chapter in D. Poston, ed., *Handbook of Population* (Springer, 2019), coauthored with Stan Smith & Thomas Bryan.

"Distinguishing 'False Positives' Among Majority-Minority Election Districts in Statewide Congressional Redistricting," 2017 Southern Demographic Association meetings (coauthor).

"A Comparison of Methods for Classifying and Modeling Respondents Who Endorse Multiple Racial/Ethnic Categories: A Healthcare Experience Application," (coauthor) *Medical Care* (2019)  
Access at: <https://www.ncbi.nlm.nih.gov/pubmed/30439794>

"Can Puerto Ricans Spark a Latino Political Backlash?" op-ed in *San Antonio Express-News*, February 13, 2018 (coauthored with Charles S. Bullock, III).  
Access at: [https://www.researchgate.net/publication/323200663\\_Can\\_Puerto\\_Ricans\\_spark\\_a\\_Latino\\_political\\_backlash](https://www.researchgate.net/publication/323200663_Can_Puerto_Ricans_spark_a_Latino_political_backlash)

"Focus on Teaching: The Legend of the Calamity-Induced Baby Boom," PAA Affairs, Spring 2017. Access at: [https://www.researchgate.net/publication/315683457\\_Focus\\_on\\_Teaching\\_The\\_Legend\\_of\\_the\\_Calamity-Induced\\_Baby\\_Boom](https://www.researchgate.net/publication/315683457_Focus_on_Teaching_The_Legend_of_the_Calamity-Induced_Baby_Boom)

"The Demography of Trump's Wall," *N-IUSSP*, April 3, 2017 (coauthor).

Access at: [www.niussp.org/article/demography-trumps-wall-mur-de-trump-et-ses-consequences-demographiques/](http://www.niussp.org/article/demography-trumps-wall-mur-de-trump-et-ses-consequences-demographiques/)  
Russian translation: <https://demreview.hse.ru/article/download/8667/9249/>

"Three Myths of U.S. Immigration," op-ed in *San Antonio Express-News*, March 4, 2017 (coauthored with Dudley L. Poston, Jr.).

Access at: [www.mysanantonio.com/opinion/commentary/article/Three-myths-of-U-S-immigration-10975928.php](http://www.mysanantonio.com/opinion/commentary/article/Three-myths-of-U-S-immigration-10975928.php)

"From Legal Theory to Practical Application: A How-To for Performing Vote Dilution Analysis," *Social Science Quarterly* 99(2): 536-552 (2018), coauthor.

Assess at: [https://www.researchgate.net/publication/315631377\\_From\\_Legal\\_Theory\\_to\\_Practical\\_Application\\_A\\_How-To\\_for\\_Performing\\_Vote\\_Dilution\\_Analyses\\_From\\_Legal\\_Theory\\_to\\_Practical\\_Application](https://www.researchgate.net/publication/315631377_From_Legal_Theory_to_Practical_Application_A_How-To_for_Performing_Vote_Dilution_Analyses_From_Legal_Theory_to_Practical_Application)

"Foreward" to D. A. Swanson, ed., *The Frontiers of Applied Demography* (2017)

Assess at: [https://www.researchgate.net/publication/311486631\\_Foreward\\_to\\_The\\_Frontiers\\_of\\_Applied\\_Demography\\_2017](https://www.researchgate.net/publication/311486631_Foreward_to_The_Frontiers_of_Applied_Demography_2017)

"Projecting Future Demand for Assisted Living in the US: A Case Study," chapter 6 in D. A. Swanson, ed., *The Frontiers Applied Demography* (2017).

Access at:

[https://www.researchgate.net/publication/311800586\\_Projecting\\_Future\\_Demand\\_for\\_Assisted\\_Living\\_chap\\_6\\_in\\_THE\\_FRONTIERS\\_OF\\_APPLIED\\_DEMOGRAPHY](https://www.researchgate.net/publication/311800586_Projecting_Future_Demand_for_Assisted_Living_chap_6_in_THE_FRONTIERS_OF_APPLIED_DEMOGRAPHY)

"Health Care Access: The Hollow Promise," op-ed in *Starkville Daily News*, 10/18/2016 (coauthored with Ron Cossman).

Access at: [https://www.researchgate.net/publication/309458235\\_Health\\_Care\\_Access\\_The\\_Hollow\\_Promise](https://www.researchgate.net/publication/309458235_Health_Care_Access_The_Hollow_Promise)

"We have the data to make voting fair. Let's use it." op-ed in *The Washington Post*, 10/22/2015

Access at: <http://www.washingtonpost.com/news/in-theory/wp/2015/10/22/we-have-the-data-to-make-voting-fair-lets-use-it/>

Supreme Court of the United States. "Brief of Demographers Peter A. Morrison, Thomas M. Bryan, William A. V. Clark, Jacob S. Siegel, David A. Swanson, and The Pacific Research Institute as *Amici Curiae* in Support of Appellants," in *Evenwel et al. v. Abbott et al.*

Access at: <http://www.scotusblog.com/wp-content/uploads/2015/08/Demographers-Amicus.pdf>

"Exploring the Blizzard Babies Phenomenon," op-ed in *Providence Journal*, March 3, 2015.

Access at: [www.providencejournal.com/article/20150303/OPINION/150309836](http://www.providencejournal.com/article/20150303/OPINION/150309836)

"A Method to Forecast Hispanic Voting Strength at Local Scales," presented at Applied Demography Conference, San Antonio, Texas, January 8-10, 2014.

"Quantifying the Effect of Age Structure on Voter Registration," *Social Science Quarterly* (2014).

Access at: <http://onlinelibrary.wiley.com/doi/10.1111/ssqu.12059/abstract>

"Forecasting Hispanics' Ripening Voting Strength at Local Scales," presented at 2012 Annual Meeting of Southern Demographic Association, Williamsburg, VA

"Gauging Hispanics' Effective Voting Strength in Proposed Redistricting Plans: Lessons Learned Using ACS Data," (coauthored with T. Bryan), for National Academy of Sciences Workshop on the Benefits (and Burdens) of the American Community Survey, Case Studies/Agenda Book, chap. 5 (2012). Access at: [http://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse\\_073124.pdf](http://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_073124.pdf)

"Chinese Workers Could Replace Mexican Immigrants," op-ed in *Houston Chronicle*, Aug. 12, 2011 (coauthored with Dudley Poston, Jr.).

Access at: [www.chron.com/opinion/outlook/article/Chinese-workers-could-replace-Mexican-immigrants-2077827.php](http://www.chron.com/opinion/outlook/article/Chinese-workers-could-replace-Mexican-immigrants-2077827.php)

“Integrating Census Data to Support a Motion for Change of Venue,” *Population Research & Policy Review* (coauthored with Dean Judson), 2011. Access at: <http://paa2011.princeton.edu/papers/111043>

“An Evaluation of Additive and Hierarchical Classifications of Race/Ethnicity as Measured on Census 2000,” coauthor (under review).

“Using the Census Bureau’s Surname List to Improve Estimates of Race/Ethnicity and Associated Disparities,” *Health Services and Outcomes Research Methodology* 9(2), pp.69-83 (coauthor). Access at: [www.rand.org/pubs/external\\_publications/EP20090611.html](http://www.rand.org/pubs/external_publications/EP20090611.html)

“Teaching Business Demography Using Case Studies,” presented at the International Union for the Scientific Study of Population Seminar on Applications of Demography in Business, Sydney Australia, October 2007 (coauthor). Appears in *Population Research & Policy Review*. Access at: <http://link.springer.com/article/10.1007/s11113-009-9155-4>

“Targeting Spatial Clusters of Elderly Consumers in the USA,” presented at the International Union for the Scientific Study of Population Seminar on Applications of Demography in Business, Sydney Australia, October 2007 (coauthored with Thomas Bryan). Appears in *Population Research & Policy Review*. Access at: <http://link.springer.com/article/10.1007/s11113-009-9149-2>

“Assessing the Need for a New Medical School: A Case Study in Applied Demography,” *Population Research & Policy Review* (coauthor).

“A New Method for Estimating Race/Ethnicity and Associated Disparities Where Administrative Records Lack Self-Reported Race/Ethnicity,” coauthor, *Health Services Research Journal* 43(5), Oct. 2008. Access at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2653886/>

“Forecasting the Supply of and Demand for Physicians in the Inland Southern California Area” (coauthor), RAND Technical Report TR524, 2007.

“Evaluating a Claim of Discriminatory Annexation Using Demographic Analysis: An Instructional Case,” at 2005 annual Southern Demographic Association meetings.

“Evaluating Evidence of Discrimination in Multi-Ethnic Housing Markets,” *Population Research & Policy Review*, 2008 (coauthored with William A. V. Clark).

“Methods for Gauging the Target Populations that Community Colleges Serve,” *Population Research & Policy Review* 26(1), 2007 (coauthored with L. Santibañez, G. Gonzalez, S. J. Carroll).

“Lingering Effects of Discrimination: Tracing Persistence Over Time in Local Populations,” *Population Research & Policy Review*, 2006.

“Understanding the Antecedents of Underage Drinking,” at 2005 annual Southern Demographic Association meetings, Durham, NC (coauthored with Allan Abrahamse).

“China: Bachelor Bomb,” *New York Times*, op-ed 09/14/2005 (coauthored with Dudley Poston) Access at: <http://www.rand.org/blog/2005/09/china-bachelor-bomb.html>

"Small-Area and Business Demography," chapter in D. Poston and M. Micklin, *Handbook of Population*, 2005 (coauthored with Stan Smith).

"Future Demographic Challenges to California School Districts," presented at 2005 annual Population Association of America meetings, session on School Demography.

"Demographic Overview of California's K-12 Public School Student Population," chap. 2 in S. J. Carroll et al., *California's K-12 Public Schools: How Are They Doing?* RAND MG-186, 2005.

"Counting on Demography: Fostering Applications of the Social Sciences," invited plenary address at the 2005 Southwestern Social Science Association meetings, New Orleans

"How Migration Flows Shape the Elderly Population of Metropolitan Pittsburgh," at 2004 annual Southern Demographic Association meetings, Hilton Head, SC (coauthored with Chris Briem)

"The Bright Lights in Pittsburgh's Future," op ed appearing in *Pittsburgh Post-Gazette*, Sept. 19, 2004 (coauthored with Barry Balmat)

"New Approaches to Spotting Enclaves of the Elderly Who Have Aged in Place," presented at 2004 Population Association of America meetings (coauthored with Tom Bryan).

"Developing an Arab-American Surname List: Potential Demographic and Health Research Applications," at 2003 Southern Demographic Association meetings (coau. with B. Kestenbaum, D. Lauderdale, A. Abrahamse, S. El-Badry).

"A Demographic Overview of Metropolitan Pittsburgh," RAND Issue Paper IP-256 (2003).

"Confronting a Race-Based School Admissions Policy," *Chance* 16(1), 2003.

"An Overview of Business Demography in the U.S.A.," invited paper for the Australian Population Association's 11<sup>th</sup> Biennial Conference, Sydney, October 2002.

"Internal Migration and Short-Distance Mobility," Chapter 19 in D. Swanson, et al., *The Methods and Materials of Demography*, rev. ed., 2003 (coau. with T.M. Bryan and D.A. Swanson).

"Business Demography," in P. Demeny and J. McNicholl, eds., *Encyclopedia of Population*, 2003 (coauthored with Stan Smith).

"A National Legacy of Migration," in Carla Blank, *Rediscovering America* (2003).

Review of J. S. Siegel, *Applied Demography: Applications to Business, Government, Law, and Public Policy in Population and Development Review* 28(1), 2002.

"A Demographic Perspective on Our Nation's Future," RAND Documented Briefing, 2001.

"Using First Names to Estimate Racial Proportions in Populations," presented at the 2001 Population Association of America meetings.



"At-Large Elections Under Legal Challenge: Where Demographic Analysis Fits In," presented at the 2000 Population Association of America meetings.

"Meeting Local Information Needs: A Case Study in Team Applied Demography," *Applied Demography Newsletter*, Population Association of America, Spring 2002 (coauthored).

"Gauging Future Prospects for a Neighborhood Vehicle: Where Demographic Analysis Fits In," at 1999 Southern Demographic Association meetings, San Antonio.

"Forecasting Enrollments for Immigrant Entry-Port School Districts," *Demography*, Nov. 2000.

"Charting Alternatives to a Segregated School Admissions Policy: Where Demographic Analysis Fits In," at 1998 Population Association of America meetings, Chicago (abridged version appears in *Chance*).

"Unveiling the Demographic 'Action' in Class Actions," *Population Research and Policy Review*, 1999.

"Family Policies and Demographic Realities," chapter in J.W. Hughes and J.J. Seneca, eds., *America's Demographic Tapestry: Baseline for the New Millennium*, Rutgers Univ. Press, 1999.

"Applying Demographic Analysis in Affirmative Action Disputes: An Instructional Case," *Population Research and Policy Review*, 1998.

"Demographic Influences on Latinos' Political Empowerment: Comparative Local Illustrations," *Population Research and Policy Review*, 1998.

"Demographic Change and School District Response: Assessing Alleged Discriminatory Effects of Boundary Changes," under review (with W.A.V. Clark).

"Forecasting Enrollments During Court-Ordered Desegregation," *Population Research and Policy Review*, 1996.

"Applying Demographic Analysis to Store Site Selection," *Population Research and Policy Review*, 1996 (with A. F. Abrahamse).

"Tracking Growth of Emerging Consumer Markets Worldwide: Where Demographic Analysis Fits In," presented at Sixth International Conference on Applied and Business Demography, Bowling Green, OH (coauthored).

"Tying Knots in the American Tapestry," Op-ed article, *Los Angeles Times*, Sept. 18, 1995.  
Access at: [http://articles.latimes.com/1995-09-18/local/me-47167\\_1\\_ethnic-identity](http://articles.latimes.com/1995-09-18/local/me-47167_1_ethnic-identity)

"Broadening Client Perspectives on Business Concerns," *Applied Demography*, Summer 1995.

"Demographic Foundations of Political Empowerment in Multi-Minority Cities," *Demography*, May, 1995 (with W.A.V. Clark).

"Demographic Perspectives on the Voting Rights Act," RAND P-7905, 1995 (briefing cohosted by U. S. House Subcommittee on Census and The Population Resource Center, Oct.19,1994).

*Demographics: A Casebook for Business and Government*, Westview Press, 1994 (coeditor).

"Empowered or Disadvantaged? Applications of Demographic Analysis to Political Redistricting," chapter in *Demographics* (cited above).

"A Riot of Color: The Demographic Setting of Civil Disturbance in Los Angeles," RAND P-7819 (with Ira S. Lowry). Condensed version appears in Mark Baldassare (ed.), *The Los Angeles Riots: Lessons for the Urban Future*, Westview, 1994.

Access at:

[https://www.researchgate.net/publication/311800927\\_A\\_Riot\\_of\\_Color\\_The\\_Demographic\\_Setting](https://www.researchgate.net/publication/311800927_A_Riot_of_Color_The_Demographic_Setting)

"Surname Analysis for Estimating Local Concentration of Hispanics and Asians," *Population Research and Policy Review*, 1994 (with A. F. Abrahamse).

Access at: [https://www.researchgate.net/publication/270279296\\_Surname\\_Analysis\\_for\\_Estimating\\_Local\\_Concentrations](https://www.researchgate.net/publication/270279296_Surname_Analysis_for_Estimating_Local_Concentrations)

"The Demographic Context of Army Family Support Policy," chapter in M.J. Eitelberg and S.L. Mehay (eds.), *Marching Toward the 21st Century* (Greenwood Press, 1994).

"Strategic Sleuths," *Forecast Magazine*, Nov/Dec 1993.

"Congress and the Year 2000: Peering into the Demographic Future," *Business Horizons*, Nov/Dec 1993 (condensation of RAND N-3279 cited below).

"A California That Can Work: People, Productivity, and Energy," RAND P-7828 (invited testimony before the California Energy Commission, June 1993).

"Goodbye Past, Hello Future: California's Demographic Shift," Op-ed article, *Los Angeles Times*, September 13, 1993.

"More than Meets the Eye," *Chance*, May 1993.

"Employment Discrimination: How Demographic Analysis Fits In," presented at Fourth International Conf. on Applied Demography, Bowling Green, Ohio, September 1992.

"Is 'Aging in Place' a Blueprint for the Future?" Association of American Geographers Meeting, San Diego, RAND, P-7794, 1992.

"Gauging Hispanic Voting Strength: Pitfalls and Paradoxes," *Population Research and Policy Review*, 1992 (with W.A.V. Clark).

"Local Redistricting: The Demographic Context of Local Boundary Drawing," *National Civic Review*, Winter/Spring 1992 (with W.A.V. Clark).

"Mirroring the Mosaic: Redistricting in a Context of Cultural Pluralism," RAND, P-7789, 1992.



"Testimony before House Subcommittee on Census and Population," RAND, P-7784, 1992.

"Healthier Childhoods and Family Responsibility: Two Issue Papers," RAND, P-7788, 1992.

"How Demographic Analysis Supports Redistricting," for Mandatory Continuing Legal Education course sponsored by County Counsels Association of California, January 1992.

"California's Future: More to Come," Op-ed article, *The Los Angeles Times*, Dec. 3, 1991.

Access at: [http://articles.latimes.com/1991-12-03/local/me-416\\_1\\_future-growth](http://articles.latimes.com/1991-12-03/local/me-416_1_future-growth)

*Soldiers' Families: Tracking Their Well-Being During Peacetime and War*, RAND, N-3405-A, 1992 (coauthor).

"California's Demographic Outlook: Implications for Growth Management," RAND, P-7738, 1991.

"The Changing Demographic Context of Postsecondary Education," RAND, P-7737, 1991.

"The Demographer's Role in the Local Boundary-Drawing Process," RAND, P-7711, 1991 (coauthor).

"Looking In From Outside: Enhancing Demographic Perspectives on Business Concerns," given at 1991 Population Association of America meetings.

"Demographic Paradoxes in the Los Angeles Voting Rights Case," *Evaluation Review*, 1991 (with W.A.V. Clark).

"Future Images—Childhood, The Workplace, Our Communities," RAND P-7656, 1990.

"The Changing Demographic Context of Municipal Governance," RAND P-7654, 1990.

"Pitfalls in Estimating Eligible Voters Among Hispanics," coauthored, given at 1990 Population Association of America meetings.

"Demographic Factors Reshaping Ties to Family and Place," *Research on Aging*, Dec. 1990.

"Applied Demography: Its Growing Scope and Future Direction," *The Futurist*, March/April 1990.

"A Demographic Perspective on Future Issues," *Congressional Research Service CRS Review*, Jan/Feb 1990.

"Leaving School Early: 'Stopping Out' and Dropping Out Among American Youth," given at the 1989 American Sociological Association meetings (with Jane Mauldon).

*Families in the Army: Looking Ahead*, RAND, R-3691-A, 1989 (coauthor).

"Quantifying Legal Standards in Section 2 Voting Rights Cases," paper given at Population Association of America.

*Congress and the Year 2000: A Demographic Perspective on Future Issues*, RAND, N-3279, March 1991.

"What Tomorrow's Demographers Will Be Called Upon to Do," RAND P-7469, 1988.

*Beyond Stereotypes: Who Becomes a Single Teenage Mother?*, RAND R-3489, 1988 (coau.).

"Government Must Help Families With Long-term Care for Elderly," op-ed article, *The Atlanta Constitution*, April 19, 1988.

"Teens Willing to Consider Single Parenthood: Who is at Greatest Risk?" *Family Planning Perspectives*, Jan/Feb, 1988 (coauthor).

*The Current Demographic Context of Federal Social Programs*, RAND, N-2785, 1988.

"Demographic Factors Reshaping the U.S. Market for New Housing," RAND, P-7467, 1988.

"Applied Demography: Its Current Scope and Future Direction in the United States," RAND Paper, 1988.

*Public Libraries Face California's Ethnic and Racial Diversity*, RAND, R-3656, 1988 (coauthor, Chapter 4).

"Changing Demographics: What to Watch For," *Business Economics*, 1987.

"Continuity and Change Across the Population Sciences," RAND, P-7281, 1986.

"Pro-Family Laws May Miss the Mark," op-ed article in *The Wall Street Journal*, Dec. 5, 1986.

*Changing Family Structure: Who Cares for America's Dependents?* RAND, N-2518, 1986.

"Accounting for the Educational Shortfalls of Mothers," *Journal of Marriage and the Family*, 1986 (coauthored).

"The Prism of Migration," *Social Science Quarterly*, 1986 (with Julie DaVanzo).

Access at: [https://www.researchgate.net/publication/284957921\\_The\\_prism\\_of\\_migration\\_Dissimilarities\\_between\\_return\\_and\\_onward\\_movers](https://www.researchgate.net/publication/284957921_The_prism_of_migration_Dissimilarities_between_return_and_onward_movers)

*How Demographic Shifts Will Affect the IRS and Its Mission*, RAND, P-7170, 1985.

Access at: <http://www.popline.org/node/421417>

"Characteristics of Migrants from Metropolitan to Nonmetropolitan Areas in the U.S.A.," *Espace Populations Societes*, 1985 (with Kevin McCarthy).

*Demographics and Business Decisionmaking: Prospects and Possibilities for the 1980s*, RAND, P-7017, 1984. Appears in *Marketing Review*, Fall 1985.

"Tracking People," *Group Practice Journal*, July/August 1984.

*Demographic Forces Reshaping Small Communities in the 1980s*, RAND, N-1887, 1982 (coauthor). Appears in *Southwestern Review of Management and Economics*, 1984.

*Population Movements: Their Forms and Functions in Urbanization and Development*, published by Ordina for International Union for the Scientific Study of Population, 1983 (editor and author of Chap. 1).

*Current Demographic Trends and Federal Policy: An Overview*, RAND, N-2030, 1983.

"Is Population Deconcentration Lengthening Commuting Distances?" *Population Research and Policy Review*, 1983 (with Kevin McCarthy).

*Migration Sequences: Who Moves Back and Who Moves On?*, RAND, R-2548-NICHD, 1982 (with Julie DaVanzo).

*Demographic Challenges in America's Future*, RAND, R-2911, 1982 (with William P. Butz).

"Different Approaches to Monitoring Local Demographic Change," chapter in E. S. Lee and H. F. Goldsmith, eds., *Population Estimates: Methods for Small Area Analysis*, Sage, 1982.

"The Energy Situation and the World of Californians," in *Regional Perspectives on Energy Issues*, (The Conference Board, July 1982).

*Demographic Certainties and Uncertainties in the Future of Social Security*, RAND, N-1742-NICHD, 1981 (invited Senate testimony). Appears in *Challenge: The Magazine of Economic Affairs*, Jan.-Feb., 1982.

"There Are Just Too Many Uncertainties," op-ed article, *The Sacramento Bee*, 9/20/81.

*Teenage Parenthood: A Review of Risks and Consequences*, RAND N-1714, 1981 (coau.).

*Teenage Parents: Their Ambitions and Attainments*, RAND, R-2771, 1981 (coau.).

"Return and Other Sequences of Migration in the U.S.," *Demography*, 18 (1): 85-101 1981 (coau.).

"How Demographers Can Help Legislators," *Policy Analysis*, 1980.

*Accommodating the Demography of the 1980s*, Midcontinent Perspective Series, Midwest Research Institute, December 1980.

*City Data: A Catalog of Data Sources for Small Cities*, RAND, R-2612, 1980 (coauthored).

Access at: <https://www.rand.org/content/dam/rand/pubs/reports/2008/R2612.pdf>

*Effects of Postsecondary Experiences on Aspirations, Attitudes, and Self-Conceptions*, RAND R-2616, 1980 (coauthor).

*Consequences of Parenthood in Late Adolescence: Findings from the National Longitudinal Study of High School Seniors*, RAND, N-1343-NICHD, 1979 (coauthored).

"Demographic Trends Impinging on Energy Use," chapter in Charles T. Unseld et al., *Sociopolitical Effects of Energy Use and Policy*, National Academy of Sciences, Washington, D.C., 1979.

*The Future Demographic Context of the Health Care Delivery System*, RAND, N-1347, 1979.

"The Transition to Zero Population Growth in the Midwest," chapter in C. C. Roseman (ed.), *Population Redistribution in the Midwest*.

"Current Demographic Change in Regions of the United States," chapter in V. L. Arnold (ed.), *Alternatives to Confrontation: A National Policy Toward Regional Change*; condensed version appears in *American Demographics*, May 1979.

*Overview of Demographic Trends Shaping the Nation's Future*, RAND, P-6128, 1978 (testimony before Joint Economic Committee of Congress).

Access at: <http://www.popline.org/node/440950>

*The Current Demographic Context of National Growth and Development*, RAND, P-5514, 1975 (Congressional testimony); published in condensed form in L. S. Bourne and J. W. Simmons (eds.), *Systems of Cities*, Oxford Univ. Press, 1978, Chap. 6.6.

"Emerging Public Concerns Over U.S. Population Movements in an Era of Slowing Growth," in T. Espenshade and W. Serow (eds.), *The Economic Consequences of Slowing Population Growth*, 1978.

"The Image of 'Elsewhere' in the American Tradition of Migration" (coauthored), in W. H. McNeill and R. S. Adams (eds.), *Human Migration: Patterns, Policies, Implications*, Indiana University Press, Bloomington, Indiana, 1978.

"New York State's Transition to Stability: The Demographic Outlook," in Ben Chinitz (ed.), *The Declining of New York in the 1970s: A Demographic and Economic Analysis*, Praeger, 1978.

*Toward A Policy Planner's View of the Urban Settlement System*, RAND, P-5357, 1975; condensed version appears in L. S. Bourne and J. W. Simmons (eds.), *Systems of Cities*, Oxford University Press, 1978, Chap. 7.3.

"The Changing Demographic and Economic Structure of Nonmetropolitan Areas in the U.S.," *International Regional Science Review*, 2(2), 1977 (with Kevin McCarthy).

"Forecasting Population of Small Areas: An Overview," in *Population Forecasting for Small Areas*, Oak Ridge Associated Universities, Oak Ridge, Tennessee, 1977.

"Demographic Trends That Will Shape Future Housing Demand," *Policy Sciences*, 1977.

"The Functions and Dynamics of the Migration Process" (Chap. 4); and "Urban Growth and Decline in the U.S.: A Study of Migration's Effects in Two Cities" (Chap. 14), in A. Brown and E. Neuberger (eds.), *Internal Migration: A Comparative Perspective*, Academic Press, 1977.

*San Jose and St. Louis in the 1960s: A Case Study of Changing Urban Populations*, RAND, R-1313-NSF, 1973; adaptation appears in S. Goldstein and D. Sly (eds.), *Patterns of Urbanization: Comparative Country Studies*, International Union for Scientific Study of Population, Liege, Belgium, 1977.

*Rural Renaissance in America? The Revival of Population Growth in Remote Areas*, Population Reference Bureau, Inc., 1976.

*National Longitudinal Study of High School Seniors: An Agenda for Policy Research*, RAND, R-1964-HEW, 1976 (coauthored).

*The Demographic Context of Educational Policy Planning*, Occasional Paper of the Aspen Institute for Humanistic Studies, 1976.

"A Method for Monitoring Small-Area Population Changes in Cities," *Review of Public Data Use*, April 1975 (coauthored).

*Recent Research Insights into Local Migration Flows*, RAND, P-5379, 1975 (coauthored).

*Population Movements and the Shape of Urban Growth: Implications for Public Policy*, RAND, R-1072-CPG, 1972 (Commission on Population Growth and the American Future, *Research Reports*, Vol. V, 1973); adaptation appears in J. Friedmann and W. Alonso, *Regional Policy: Readings in Theory and Applications*, MIT Press, 1975.

"Urban Growth and Decline: San Jose and St. Louis in the 1960s," *Science*, 1974.

*Review of Federal Programs to Alleviate Rural Deprivation*, RAND, R-1651, 1974 (coauth.).

"Guiding Urban Growth: Policy Issues and Demographic Constraints," RAND P-5212, 1974.

Access at: [https://www.academia.edu/29836028/Guiding\\_urban\\_growth\\_Policy\\_issues\\_and\\_demographic\\_constraints](https://www.academia.edu/29836028/Guiding_urban_growth_Policy_issues_and_demographic_constraints)

"A Demographic Assessment of New Cities and Growth Centers as Population Redistribution Strategies," *Public Policy*, 1973.

*Dimensions of the Population Problem in the United States* RAND, R-864-CPG, 1972 (Comm. on Population Growth and the Amer. Future, *Research Reports*, Vol. V, 1973).

*How Population Movements Shape National Growth*, RAND, P-5007, 1973 (Congressional Seminar on National Growth Policy).

*Migration from Distressed Areas: Its Meaning for Regional Policy*, RAND, R-1103, 1973.

"Theoretical Issues in the Design of Population Mobility Models," *Environment and Planning*, 1973.

*The Impact and Significance of the Rural-Urban Migration in the United States*, RAND, P-4752, 1972 (testimony before U.S. Senate Subcommittee on Migratory Labor and Public Welfare).

"Chronic Movers and the Future Redistribution of Population," *Demography*, 1971.

"The Role of Migration in California's Growth," in K. Davis and F. Styles (eds.), *California's Twenty Million: Research Contributions to Public Policy*, Institute of International Studies, University of California, Berkeley, 1971.

"Duration of Residence and Prospective Migration," *Demography*, 1967.

(Updated: 07/27/2019)